Department of Transportation
Project Nos. 70-115 & 70-116
Replacement of Bridge Nos. 01915 & 00396
SR 616 (Norwich Avenue) over Gillette Brook and Bartlett Brook
Town of Lebanon

April 27, 2009 at 7:00 p.m.
Lyman Memorial High School Auditorium

Minutes

Present:

Connecticut Department of Transportation (ConnDOT or Department)
Bartholomew P. Sweeney, Transportation Supervising Engineer
Mary E. Baker, Transportation Engineer
Carl E. Nelson, District Engineer, District 2
Derrick Ireland, Rights of Way

Close, Jensen and Miller, P.C. (CJM)
Mark F. Levesque, Project Engineer
Robert A. Cosker, Project Engineer

Presentation:

The Public Information Meeting was presented by ConnDOT's Mary Baker and CJM's Mark Levesque and Robert Cosker who presented the following information:

- Mary Baker began the meeting by describing ConnDOT's responsibility for initiating and implementing projects, CJM's role as Consultant Liaison Engineers, and the project goals.
- Mark Levesque summarized the existing Bridge No. 01915, which carries SR 616 (Norwich Avenue) over Gillette Brook in the town of Lebanon. It is situated between Sisson Road and Randall Road and carries one lane of traffic in each direction. The bridge is a single span structure, built in 1923, consisting of a reinforced concrete slab supported by reinforced concrete abutments and wingwalls with unknown foundations. The concrete deck is overlain with bituminous concrete pavement. There are short concrete parapets topped with metal beam railing on each side of the structure. The bridge is located at the bottom of a sag vertical curve and is on a horizontal tangent alignment. It has an overall length and width of 17 feet and 31.5 feet, respectively, and a curb-to-curb width of 29.5 feet. The Average Daily Traffic (ADT) on SR 616 at this site is 1,700 vehicles (2007).

- Mr. Levesque next described the reasons for the project. He noted that the existing bridge is structurally deficient ("poor" condition of reinforced concrete substructure) due to the moderate to heavy scaling concrete, delaminated (hollow sounding) concrete along the bottom 1-2 feet of the abutments, heavy map cracking of the wingwalls, and the numerous undermined areas throughout the abutments and wingwalls. He noted that grout bags have been placed along the bottom of both abutments for scour protection. He also described the reinforced concrete slab superstructure as being moderately deteriorated.
- Mr. Levesque described the proposed construction, which involves the replacement of the structure with a new longer span (27 feet clear span) reinforced concrete slab superstructure with an asphaltic wearing surface on reinforced concrete integral abutments founded on steel piles with u-type wingwalls. The proposed bridge will have a total length of 34.3 feet, a total width of 36.5 feet, and will be 32 feet wide between curbs. Three-rail open bridge railings will be installed on both sides of the bridge and the roadway guide railing will be replaced with metal beam railing that conforms to current standards. The abutments will be skewed to improve the channel alignment. The existing roadway geometry will be improved by reducing the sag vertical curve. To accomplish this, the roadway profile will be raised approximately 8 inches at the bridge and the approach roadways will be modified for approximately 155 feet beyond each end of the bridge.
- Mr. Levesque described the proposed method to construct the bridge using stage construction. He noted that the bridge would be constructed in two stages maintaining one lane of alternating one-way traffic controlled by temporary signals in each stage.
- Robert Cosker summarized the existing Bridge No. 00396, which carries SR 616 (Norwich Avenue) over Bartlett Brook in the town of Lebanon. It is situated between Roger Foot Road and Geer Road and carries one lane of traffic in each direction. The bridge is a single, 24-foot long, clear span structure, built in 1922, consisting of a reinforced concrete slab and two reinforced concrete tee beams supported by reinforced concrete abutments and flared wingwalls, all founded on spread footings. The concrete deck is overlain with varying thickness bituminous concrete pavement. The structure has balustrade type parapets on each side of the roadway cast monolithically with the slab and tee beams. The bridge is located at the bottom of a sag vertical curve and is on a large radius horizontal curve. It has an approximate overall length and width of 28 feet and 27.6 feet, respectively, and a curb-to-curb width of 25 feet. The Average Daily Traffic (ADT) on SR 616 at this site is 1,300 vehicles (2007).
- Mr. Cosker next described the reasons for the project. He noted that the existing bridge is structurally deficient ("poor" condition of reinforced concrete substructure) due to the severely scaled and heavily spalled concrete abutments and wingwalls, which have exposed reinforcing steel

and numerous previously repaired areas, and the settlement of the northwest wingwall, which occurred as a result of an undermining condition that has since been filled in with sediment. He described the reinforced concrete slab and tee beam superstructure as being heavily deteriorated with map cracking throughout and large spalled areas, with some exposed and rusted reinforcing steel. He noted that the existing bridge is currently posted for a 34-ton live load restriction and is scour critical. The bridge is hydraulically inadequate due to the insufficient opening capacity, which causes pressure flow to occur during the design storm. The hydraulic analysis also shows the brook overtops the roadway during significant storm events. He also noted that the bridge roadway width is substandard, as the roadway width of 25 feet at the bridge is narrower than the approach roadway width of 26.5 feet. A minimum width of 28 feet is required statutorily.

- Mr. Cosker described the proposed construction, which involves the replacement of the structure with a new longer span (60 feet clear span) structure with an asphaltic wearing surface on pile supported abutments. The superstructure will be comprised of a cast-in-place reinforced concrete deck supported by galvanized steel stringers with standard parapets and bridge rail. The substructure will be cast-in-place reinforced concrete full-height abutments with spread footings on steel piles and wingwalls in line with the roadway. The proposed bridge will have a span length of 62.5 feet centerline to centerline of bearings, a total width of 32.2 feet, and will be 28.5 feet wide between curbs. The roadway profile will be raised approximately 2 feet at the bridge to increase the hydraulic opening. Full depth pavement reconstruction of the approach roadways will be required to approximately 425 feet east and 265 west of the bridge. Retaining walls will be constructed as necessary to limit the amount of fill associated with a raised roadway profile. The roadway guide railing will be replaced with metal beam railing that conforms to the current standards.

- Mr. Cosker described the proposed method to construct the bridge. He noted that the bridge would be closed to traffic during construction and traffic would be detoured around the bridge using State Route 2 as the primary detour route. The detour would offer benefits versus other maintenance and protection of traffic schemes including: ease of construction, the fastest construction time, the best quality of construction, the least expensive construction cost. At this site, overbuild would be required to maintain one lane of alternating one-way traffic during stage construction. Use of this detour minimizes the width of the new structure.

- Ms. Baker continued with a synopsis of project impacts with respect to the following:
    - Environmental Considerations – Gillette Brook and Bartlett Brook and their adjacent wetlands are State and Federally regulated environmental resources. Environmental permits including the Inland Wetlands and Watercourses Permit, Flood Management

Certification, and the U.S. Army Corps of Engineer Programmatic General Permit will be required to construct the bridges.

- Public Utilities – Telecommunication, electric and cable television wires are located on the north side of the roadway at both bridge sites. Utility poles and wires will require relocation during construction activities. All utilities have been contacted and coordination will continue as the project develops.
- Rights-of-Way – Since the existing right-of-way for SR 616 (Norwich Avenue) is approximately 60 feet at each bridge site, impacts to private property consisting of permanent and temporary easements are anticipated as a result of the project.

- Ms. Baker concluded the presentation with statements of the anticipated project cost, funding and schedule:
  - Cost estimated at $5,000,000 for the entire project; 80% Federal funds and 20% State funds.
  - Construction duration of approximately 18 months with an anticipated start date in summer of 2011; schedule is preliminary and predicated upon the availability of funding and the receipt of all environmental permit authorizations and property acquisitions.

Public Comments and Questions:

One reporter from *The Chronicle* attended the meeting, who during the question and answer period had general questions on the Rights-of-Way process. All questions were responded to by the Department and Close, Jensen, and Miller, P.C.

Adjournment: The Public Information Meeting ended at approximately 7:45 p.m.